Temperature Multiplot VI

Goal

Plot multiple data sets on a single waveform chart and customize the chart view.

Scenario

Modify the VI from the previous VI to plot both the current temperature and the running average on the same chart. In addition, allow the user to examine a portion of the plot while the data is being acquired.

Design

Figure 3-1 shows the front panel for the existing VI (Average Temperature VI) and Figure 3-2 shows the block diagram.

![Figure 3-1. Average Temperature VI Front Panel](image)

To allow the user to examine a portion of the plot while the data is begin acquired, display the Scale Legend and Graph Palette for the waveform chart. Also, expand the legend to show additional plots.

To modify the block diagram in Figure 3-2, you must modify the chart terminal to accept multiple pieces of data. Use a Bundle function to combine the average temperature and the current temperature into a cluster to pass to the Temperature History chart terminal.